MOXA®

NPort Z2150
Quick Installation Guide

First Edition, November 2011

Overview

The NPort Z2150 is a reliable wireless serial I/O with support for serial to ZigBee communications. The NPort Z2150 can act as a ZigBee Coordinator, ZigBee Router or ZigBee End Device. Any serial device can be connected by the NPort Z2150 and exchange data via Personal Area Network (PAN).

Package Checklist

Before installing the NPort Z2150, verify that the package contains the following items:

Standard Accessories
- NPort Z2150
- Documentation & Software CD
- Power adaptor (not included with wide temperature models)
- Warranty statement
- Quick Installation Guide
- 2.4 GHz, omni-directional antenna

Optional Accessories
- DK-35A: DIN-rail mounting kit (35 mm)

NOTE: Please notify your sales representative if any of the above items are missing or damaged.

Hardware Introduction

LED Indicators

LED	Color	Descriptions
Ready/Fault	Green	On: System power is on Blinking: Pull down the reset button
	Red	Blinking: 1) Node ID conflict 2) Destination node ID disappeared
ZigBee Link	Green	Coordinator: ON: ZigBee PAN initialized successfully Blinking: ZigBee Tx/Rx Off: ZigBee PAN initialization failure
		Router: On: Joined ZigBee PAN successfully Blinking: ZigBee Tx/Rx

P/N: 1802021504010

		Off: Failure to join ZigBee PAN
		End Device: On: Joined ZigBee PAN successfully Blinking: ZigBee Tx/Rx Off: Failure to join ZigBee PAN/ parent node removed
Serial Tx/Rx	Green	Serial data output to serial port
	Orange	Serial data input from serial port

The NPort Z2150 models have one serial port. All models support RS-232/422/485 with DB9 connectors.
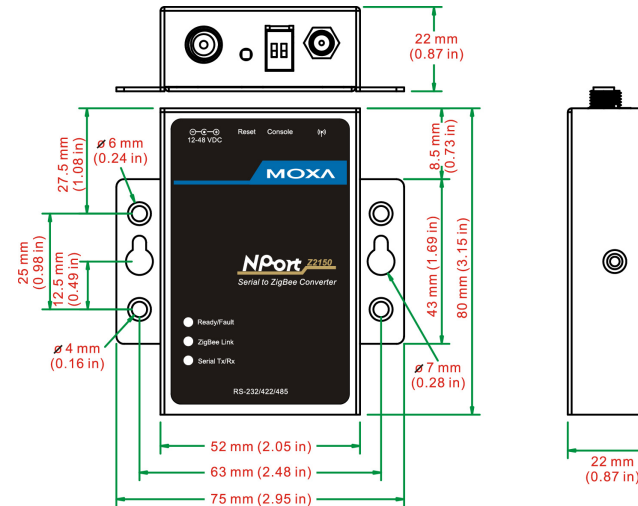
Reset Button

The reset button is used to load factory defaults. Use a pointed object such as a straightened paper clip to hold the reset button down for five seconds. Release the reset button when the Ready LED stops blinking.
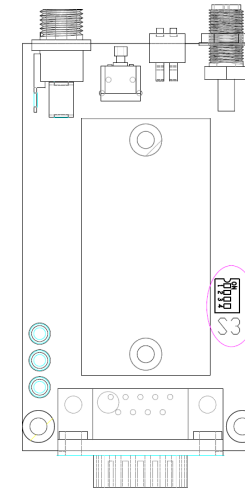
DIP Switch

Serial Connection	1
Console Mode	ON
Operation Mode	OFF

Note: 2 reserved for future use

Pull High/Low Resistors for RS-422/485

You may need to set the pull high/low resistors when termination resistors are used for certain RS-422 or RS-485 environments.

	SW	1	2	3	4
		Pull High	Pull Low	Terminator	Reserved
	ON	1KΩ	1KΩ	120KΩ	
Default	OFF	150KΩ	150KΩ		

NOTE Do not use the 1KΩ setting while in RS-232 mode. Doing so will degrade the RS-232 signals and reduce the effective communication distance.

First-time Hardware Installation

STEP 1: After removing the NPort Z2150 from the box, set the DIP-switch to console mode and use a cross-over serial cable to connect the NPort's DB9 serial port directly to your computer's serial port to configure.

STEP 2: Attach the power adaptor to the NPort and then plug the adaptor into an electrical outlet.

STEP 3: Configure the NPort Z2150 through the serial port. See the next section for software installation information.

Software Installation Information

Insert the Documentation & Software CD. A window should open with several options displayed:

- Click **Documents** and select "NPort Z2150 Series User's Manual" to view the user's manual.
- Click **Install Utility** and follow the on-screen instructions to install the ZigBee Configuration Utility. This utility can be used to search for NPort Z2150 units via serial ports.

Pin Assignments and Cable Wiring

PIN	RS-232	RS-422, 4w RS-485	2w RS-485
1	DCD	TxD-(A)	---
2	RXD	TxD+(B)	---
3	TXD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	---	---
7	RTS	---	---
8	CTS	---	---
9	---	---	---

```
 1  2  3  4  5
 6  7  8  9
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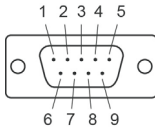
Specifications

Power Requirements
Input Voltage: 12 to 48 VDC
Power Consumption: 45 mA @ 12 V
Connector: Power Jack
Physical Characteristics
Weight: 340g
Dimension:
    Without ears: 52 x 80 x 22 mm (2.05 x 3.15 x 0.87 in)
    With ears: 75 x 80 x 22 mm (2.95 x 3.15 x 0.87 in)
Regulatory Approvals
EMC: CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B
Class A
Safety: UL (UL60950-1), LVD (EN60950-1)

⚠️ **WARNING**

1. This equipment is intended to be used in a Restricted
Access Location.
2. This product is intended to be supplied by an UL 60950-1
and IEC 60950-1 certified power supply marked "LPS" and
rated output rating: 12 to 48 VDC, 45 mA @ 12 V minimum,
75°C.

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